

Lymphangioma of the tongue

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ABSTRACT

Lymphangiomas are developmental malformations and have a marked predilection for the head and neck region. They are benign proliferation of lymphatic vessels and represents hamartomas of malformed lymphatics. The most common location in the mouth is the dorsum of tongue, followed by lips, buccal mucosa, soft palate, and floor of the mouth. In the tongue, they may present as a localized or a diffused growth which may enlarge to cause macroglossia, impaired speech and difficulty in mastication. These tumors are typically present at birth, but may go unnoticed until after dentition erupts or even after puberty. Presenting here is a case of localized lymphangioma of the tongue in a five year old child and its surgical management.

Key words: Macroglossia, lymphangioma, developmental malformation, tongue, impaired speech, difficulty in mastication

INTRODUCTION

Lymphangioma is a benign proliferation of lymphatic vessels and represents hamartomas of malformed lymphatics. They have poor communication with the normal lymph systems and therefore collect lymph.^[1-5] The most common location in the mouth is the dorsum of tongue, followed by lips, buccal mucosa, soft palate, and floor of the mouth.^[4] The clinical appearance of lymphangioma depends on the extension of the lesion. Superficial lesions consist of elevated nodules with pink or yellowish color. Deeper lesions are described as soft, diffuse masses with normal color.^[4] These tumors typically present in children younger than 2 years and in a significant number of cases are present at birth.^[1-9] This article describes a case of lymphangioma of the tongue and its management.

Dental College, Moradabad with chief complaint of growth on the right lateral border of tongue, associated with biting of the tongue on mastication. Her parents noticed it increasing in size along with the growth of the child. On inspection, there was a marked soft tissue growth with numerous papillary and vesicle-like projections which made it appear irregular and granular [Figure 1]. On palpation, the swelling was soft, nontender and pebbly. The mouth opening was normal and there was no restriction of functions of the tongue. On the basis of history and clinical features a provisional diagnosis of lymphangioma was made and an excisional biopsy under general anaesthesia was planned.

Under general anesthesia, a deep suture was placed on the tip of the tongue [Figure 2] for retraction. Single linear incision was outlined on the base of the elevated mass on the lateral surface of the tongue with methylene blue. Initially, the incision was mucosal all around the elevated mass and subsequently it was deepened to excise it completely [Figure 3].

Following excision, the tongue was approximated in two layers [Figure 4]. The excised mass measured 2×2×1.5 cm [Figure 5]. On histopathological examination it was confirmed to be a lymphangiomatous lesion [Figure 6]. The patient was discharged after 4 days with a normal looking tongue. There was no evidence of recurrence of the lesion on follow-up of 4 years.

CASE REPORT

A 5-year-old girl reported to the OPD of Kothiwal

Access this article online	
Quick Response Code: 	Website: www.njms.in
	DOI: 10.4103/0975-5950.85862

DISCUSSION

Lymphangiomas are hamartomas of malformed lymphatics. They are believed to arise from lymph sac sequestration and enlarge due to inadequate drainage, from lack of communication with the central lymphatic channels or excessive secretion of lining cells.

Goetsch in 1938 noted that this sequestered lymphatic tissue forms cysts which enlarge from accumulation of lymph caused by projection of endothelial sprouts from cystic walls. The sprouts further destroy tissue and force the lesion into areas of least resistance, between muscles and vessels, invading tissue planes and causing atrophy, fibrosis and hyalinization of the engulfed tissue.^[1]



Figure 1: Right lateral border of tongue showing the soft tissue growth

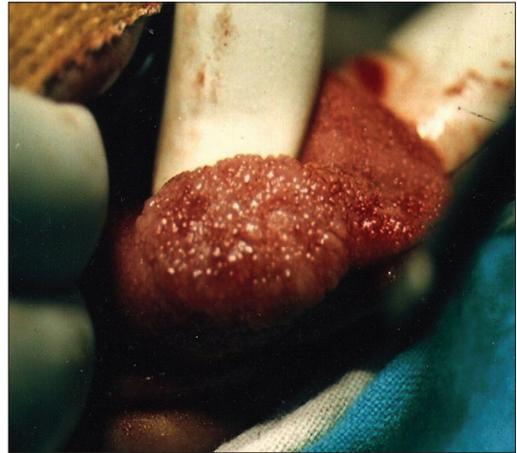


Figure 2: Retraction of tongue and localization of lesion

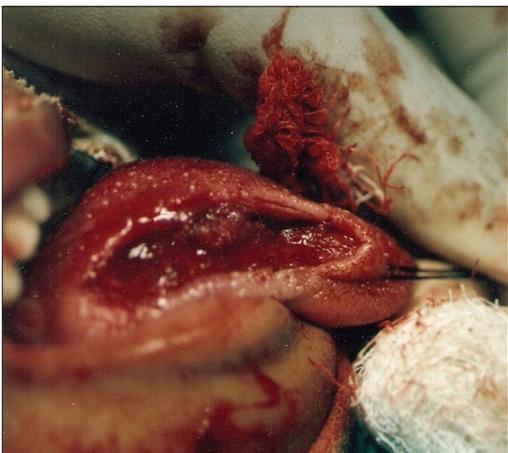


Figure 3: Tongue after excision of the lesion



Figure 4: Closure of the wound



Figure 5: Excised lesion in toto

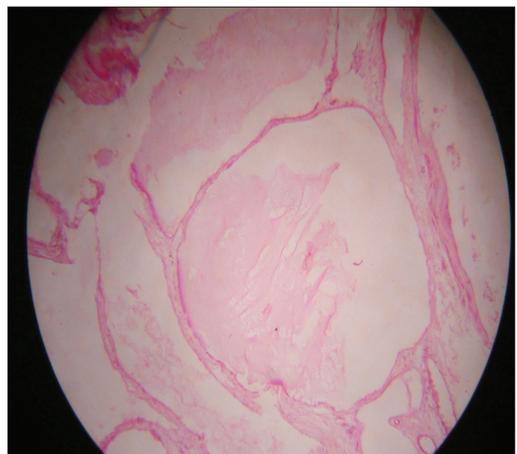


Figure 6: Photomicrograph (10x)

Lymphangiomas can be classified histopathologically as:^[3]

1. Lymphangioma simplex (composed of small thin-walled lymphatics).
2. Cavernous lymphangioma (comprised of dilated lymphatic vessels with surrounding adventitia).
3. Cystic lymphangioma (consisting of huge, macroscopic lymphatic spaces surrounded by fibrovascular tissues and smooth muscles).
4. Benign lymphangioendothelioma (lymphatic channels appear to be dissecting through dense collagenic bundles).

Lymphangiomas are classified according to their clinical presentation into macrocystic (cavities larger than about 2 cm³), microcystic (cavities smaller than about 2 cm³), and mixed (combining these two types).^[6]

They are always present at birth, but they may go unnoticed until after dentition erupts or even after puberty. However, there have been reports of its occurrence in adults.^[7] The frequent site is the anterior two-thirds of the tongue and may enlarge to a great extent that results in macroglossia, which may impair speech and eating and may become life-threatening due to their size or secondary infection.^[1,5,8]

Lymphangioma of the tongue may present as a localized or diffuse growth. Localized lymphangiomas occur as nodular tumors elevated above the surface of the tongue. Their limited extent usually permits complete surgical excision with various techniques of tongue reduction described by a number of authors.^[7,9]

The treatment of lymphangioma depends upon their type, size, involvement of anatomical structures and infiltration to the surrounding tissues. Microcystic lesions do not respect tissue planes, are diffuse and difficult to eradicate, whereas macrocystic lesions are localized and easily excised.^[10] Treatment is

aimed at complete surgical excision. Partial surgical excision, injection of sclerosing solutions (OK432), electrocoagulation, cryotherapy, embolization, steroid administration, radiation and laser surgery may be the other modalities of treatment of diffuse lymphangioma of the tongue.^[1,7-9] Since they do not respond to sclerosing agents, pressure therapy, radiotherapy or any known chemotherapy, they are either tolerated by the patient or treated surgically.^[5]

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How to cite this article: Goswami M, Singh S, Gokkulakrishnan S, Singh A. Lymphangioma of the tongue. *Natl J Maxillofac Surg* 2011;2:86-8.

Source of Support: Nil. **Conflict of Interest:** None declared.